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10/550,388

09/22/2005

Eiji Furukawa

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EXAMINER

LIU, XUE H

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,388	Applicant(s) FURUKAWA ET AL.	
	Examiner XUE LIU	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 23-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/22/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Applicant's election without traverse of claims 16-22 in the reply filed on 12/24/08 is acknowledged.

2. Claims 23-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 12/24/08.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "16" has been used to designate both an engagement member and a parting recess. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: On page 59, lines 21-22 of the specification, "and on acrylonitrile butadiene styrene resins" should read "and an acrylonitrile butadiene styrene resins".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Atake (English abstract and machine translation of JP11099536).

Regarding claim 16, Atake teaches a manufacturing method for an injection-molded and in-mold decorated article P, comprising: setting a decorating film S between a first mold element 25 and a second mold element 12 placed in opposition to each other so that a molding space is defined by the decorating film S and the first mold element 25, the molding space including a product molding space 3 and a resin-discharging-use molding space 41-46 which is formed so as to be adjacent to and communicative with at least part of a periphery of the product molding space 3 and into which molten molding resin is let to flow for discharge of the molding resin from the product molding space 3; injecting the molten molding resin into the product molding space 3; discharging part of the injected molding resin from the product molding space 3 into the resin-discharging-use molding space 41-46; completing filling of the molding resin into the product molding space 3 and the resin-discharging-use molding space 41-46; and solidifying the molding resin filled in the molding space while decorating a surface of the molding resin with the decorating film S, so that the injection-molded and in-mold decorated article P is manufactured (English abstract, figs. 1-5, paragraphs 1, 3-5, 9, 16, 25, 30, 32, 42-48, 53, 60-62 and 65 in the machine translation).

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Regarding claim 20, Atake teaches that the injection of the of the molding resin is performed in a state that, with the decorating film S placed between the first mold element 25 and the second mold element 12, the first mold element 25 and second mold element 12 are clamped to make the molding space hermetically closed (figs. 3 &5, and paragraphs 3 and 16 in the machine translation).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atake as applied to claim 16 above, and further in view of Yoshida et al. (English abstract and drawings of JP2000-117786).

Regarding claim 17, Atake does not teach that the molding space further includes a resin-injection-use molding space which is formed so as to be adjacent to and communicative with at

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least part of a periphery of the product molding space and into which the molding resin is injected from outside of the molding space. Atake does not teach that the method further comprising: after setting the decorating film so that the molding space including the product molding space, the resin-discharging-use molding space, and the resin-injection-use molding space, injecting the molding resin from outside of the molding space into the resin-injection-use molding space; and making the injected molding resin flow from the resin-injection-use molding space into the product molding space, by which the injection of the molding resin into the product molding space is fulfilled. However, Yoshida et al. teach an injection molding apparatus wherein a molding space includes a resin-injection-use molding space 31 which is formed so as to be adjacent to and communicative with at least part of a periphery of the product molding space 3 and into which the molding resin 4 is injected from outside of the molding space, the method comprising: injecting the molding resin 4 from outside of the molding space into the resin-injection-use molding space 1; and making the injected molding resin 4 flow from the resin-injection-use molding space 31 into the product molding space 3, by which the injection of the molding resin 4 into the product molding space 3 is fulfilled (English abstract, figs. 1-3 and 6-7). It would have been obvious to one of ordinary skill in the art to incorporate the teaching of Yoshida et al. in the injection molding process of Atake since Yoshida et al. teach that the use of a resin-injection-use molding space realizes a simple and precise molding and enables the productivity to be increased (English abstract).

Regarding claim 18, Yoshida et al. further teach that the molding space includes a first product molding space 12 and a second product molding space 13 as said product molding spaces, which are communicative with each other, and a common resin-injection-use molding

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space 31 as said resin-injection-use molding space, the molding resin is injected from outside of the molding space into the common resin-injection-use molding space 31; the injected molding resin is let to flow from the common resin-injection-use molding space 31 into the first product molding space 12 and the second product molding space 13, by which filling of the molding resin is fulfilled (English abstract and figs. 1-3 and 6-7).

Regarding claim 19, Atake does not teach that the molding space includes a first product molding space and a second product molding space, which are communicative with each other, an a common resin-discharging-use molding space as said resin-discharging-use molding space, which is placed between the first product molding space and the second product molding space and which is communicative with the first product molding space and the second product molding space, the molding resin is injected into the first product molding space and the second product molding space, part of the molding resin injected into the first product molding space and part of the molding resin injected into the second product molding space are discharged into the common resin-discharging-use molding space, and the filling of the molding resin into the first product molding space, the second product molding space and the common resin-discharging-use molding space is completed. However, Yoshida et al. teach an injection molding apparatus wherein the molding space includes a first product molding space 12 and a second product molding space 13, which are communicative with each other, and a common resin-injection-use molding space 31, which is placed between the first product molding space 12 and the second product molding space and which is communicative with the first product molding space 12 and the second product molding space 13, the molding resin is injected into the first product molding space 12 and the second product molding space 13 (English abstract and figs. 1-

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3 and 6-7). It would have been obvious to one of ordinary skill in the art to provide a plurality of product molding space which are communicative with each other, and a common auxiliary molding space such as a resin-discharging-use molding space which is placed between the plurality of product molding spaces and which is communicative with the plurality of product molding spaces in the injection molding process of Atake in view of the teaching of Yoshida et al. since Yoshida et al. teach that the plurality of product molding spaces and the common auxiliary molding space realizes a simple and precise molding and enables the productivity to be increased (English abstract). Therefore, the combination of Atake and Yoshida et al. teach that the that the molding space includes a first product molding space and a second product molding space, which are communicative with each other, an a common resin-discharging-use molding space as said resin-discharging-use molding space, which is placed between the first product molding space and the second product molding space and which is communicative with the first product molding space and the second product molding space, the molding resin is injected into the first product molding space and the second product molding space, part of the molding resin injected into the first product molding space and part of the molding resin injected into the second product molding space are discharged into the common resin-discharging-use molding space, and the filling of the molding resin into the first product molding space, the second product molding space and the common resin-discharging-use molding space is completed.

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atake as applied to claim 20 above, and further in view of Gumery et al. (English abstract and drawings of FR 2729886).

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Regarding claim 21, Atake does not teach that after the filling of the molding resin into the molding space, a capacity of the molding space is reduced while compressing the filled molding resin. However, Gumery et al. teach an in-mold coating method in which the plastics material is initially injected and then, before the core of the part has cooled down completely, paint is injected. The molded part is painted without opening the mold. The still-fluid core of the part is compressible and allows the paint which is injected under pressure and allows the paint which is injected under pressure to spread around the part (see English abstract and figs. 1-8). It would have been obvious to one of ordinary skill in the art to incorporate the teaching of Gumery et al. in the injection molding process of Atake for molding an in-mold coated article since the process allows control and variation of coating thickness and elimination of burrs.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atake as applied to claim 16 above, and further in view of Easterflow et al. (WO 9513177).

Regarding claim 22, Atake does not teach that with the decorating film is placed between the first mold element and the second mold element and making the first mold element and the second mold element approached by each other so as to be in a condition the molding space is opened, the injection of the molding resin is performed, and thereafter the first mold element and the second mold element is clamped so that a capacity of the molding space is reduced while compressing the filled molding resin. However, Easterflow et al. teach a method in which the plastics material is initially injected into a mold cavity, and then the parts constituting the mold are moved relative to each other so as to leave a gap into which paint can be injected (abstract, figs. 1-18). It would have been obvious to one of ordinary skill in the art to incorporate the teaching of Easterflow et al. in the injection molding method of Atake to inject the molding resin

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while the molding space is opened in order to form an in-mold coated article with a good finish. While Easterflow et al. do not teach clamping the mold elements, Atake teaches that the first mold element and the second mold element are clamped (figs. 3 & 5, and paragraphs 3 and 16 in the machine translation). Therefore it would have been obvious to one of ordinary skill in the art to clamp the mold elements after the injection of the molding resin in the process according to the combined teachings of the prior art to reduce the molding space while compressing the filled molding resin in order to control the thickness of the molded part.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XUE LIU whose telephone number is (571)270-5522. The examiner can normally be reached on Monday to Friday 9:30 - 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/X. L./

Examiner, Art Unit 1791

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791